

**CLAIMS**

The following invention is claimed:

1. An apparatus that optimizes the output speed and the replenishment of consumable media in a digital photographic kiosk, comprising:

5 a first output print device with consumable media;  
a second output print device with consumable media;  
a system controller that controls the utilization of consumable media of said first output print device and said second output print device;

10 wherein said system controller initially causes a disproportionate amount of utilization of consumable media to be produced from said second output print device compared to said first output print device, the disproportionate amount of utilization of consumable media from said second output print device continues until the amount of consumable media of said first output print device is in a first preferred ratio compared to the amount of consumable media in said second output print device;

15 when said first preferred ratio is achieved between the consumable media of said first output print device and said second output print device, said system controller alternates utilization of consumable media between said first output print device and said second output print device until said second output print device exhausts its consumable media;

20 upon replenishment of the consumable media of said second output print device, said system controller causes a disproportionate amount of utilization of consumable media to be produced from said second output print device compared to said first output print device, the disproportionate amount of utilization of consumable media continues until the amount of consumable media of said second output print device is in a second preferred ratio compared to the amount of consumable media in said first output print device;

25 when said second preferred ratio is achieved between the consumable media of said second output print device and said first output print device, said system controller alternates utilization of consumable media between said second output print device and said first output print device until said first output print device exhausts its consumable media;

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upon replenishment of the consumable media of said first output print device, said system controller causes a disproportionate amount of utilization of consumable media to be produced from said first output print device compared to said second output print device, the disproportionate amount of utilization of consumable media continues until the amount of consumable media of said first output print device is in said first preferred ratio compared to the amount of consumable media in said second output print device;

when said first preferred ratio is achieved between the consumable media of said first output print device and said second output print device, said system controller alternates utilization of consumable media between said first output print device and said second output print device until said second output print device exhausts its consumable media; and

said system controller maintains continued utilization of consumable media in the above alternating process.

2. A system that optimizes the output speed and the replenishment of consumable media in a digital photographic kiosk, comprising:

a digital photographic kiosk that further comprises:

a first output print device with consumable media;

a second output print device with consumable media;

a system controller that controls the utilization of consumable media of said first output print device and said second output print device;

wherein said system controller initially causes a disproportionate amount of utilization of consumable media to be produced from said second output print device compared to said first output print device, the disproportionate amount of utilization of consumable media from said second output print device continues until the amount of consumable media of said first output print device is in a first preferred ratio compared to the amount of consumable media in said second output print device;

when said first preferred ratio is achieved between the consumable media of said first output print device and said second output print device, said system controller alternates utilization of consumable media between said first output print device and said second output print device until said second output print device exhausts its consumable media;

upon replenishment of the consumable media of said second output print device, said system controller causes a disproportionate amount of utilization of consumable media to be produced from said second output print device compared to said first output print device, the disproportionate amount of utilization of consumable media continues until the amount of consumable media of said second output print device is in a second preferred ratio compared to the amount of consumable media in said first output print device;

when said second preferred ratio is achieved between the consumable media of said second output print device and said first output print device, said system controller alternates utilization of consumable media between said second output print device and said first output print device until said first output print device exhausts its consumable media;

upon replenishment of the consumable media of said first output print device, said system controller causes a disproportionate amount of utilization of consumable media to be produced from said first output print device compared to said second output print device, the disproportionate amount of utilization of consumable media continues until the amount of consumable media of said first output print device is in said first preferred ratio compared to the amount of consumable media in said second output print device;

when said first preferred ratio is achieved between the consumable media of said first output print device and said second output print device, said system controller alternates utilization of consumable media between said first output print device and said second output print device until said second output print device exhausts its consumable media; and

said system controller maintains continued utilization of consumable media in the above alternating process.

3. A method to make a digital photographic kiosk that optimizes the output speed and the replenishment of consumable media, comprising:

providing a first output print device with consumable media;

providing a second output print device with consumable media;

providing a system controller that controls the utilization of consumable media of said first output print device and said second output print device;

wherein said system controller initially causes a disproportionate amount of utilization of consumable media to be produced from said second output print device compared to said first output print device, the disproportionate amount of utilization of consumable media from said second output print device continues  
5 until the amount of consumable media of said first output print device is in a first preferred ratio compared to the amount of consumable media in said second output print device;

when said first preferred ratio is achieved between the consumable media of said first output print device and said second output print device, said system  
10 controller alternates utilization of consumable media between said first output print device and said second output print device until said second output print device exhausts its consumable media;

upon replenishment of the consumable media of said second output print device, said system controller causes a disproportionate amount of utilization of  
15 consumable media to be produced from said second output print device compared to said first output print device, the disproportionate amount of utilization of consumable media continues until the amount of consumable media of said second output print device is in a second preferred ratio compared to the amount of consumable media in said first output print device;

20 when said second preferred ratio is achieved between the consumable media of said second output print device and said first output print device, said system controller alternates utilization of consumable media between said second output print device and said first output print device until said first output print device exhausts its consumable media;

25 upon replenishment of the consumable media of said first output print device, said system controller causes a disproportionate amount of utilization of consumable media to be produced from said first output print device compared to said second output print device, the disproportionate amount of utilization of consumable media continues until the amount of consumable media of said first  
30 output print device is in said first preferred ratio compared to the amount of consumable media in said second output print device;

when said first preferred ratio is achieved between the consumable media of said first output print device and said second output print device, said system

controller alternates utilization of consumable media between said first output print device and said second output print device until said second output print device exhausts its consumable media; and

said system controller maintains continued utilization of consumable media in the above alternating process.

4. A method to use a digital photographic kiosk that optimizes the output speed and the replenishment of consumable media, comprising:

using consumable media with a first output print device;

using consumable media with a second output print device;

controlling the utilization of consumable media of said first output print device and said second output print device with a system controller;

wherein said system controller initially causes a disproportionate amount of utilization of consumable media to be produced from said second output print device compared to said first output print device, the disproportionate amount of utilization of consumable media from said second output print device continues until the amount of consumable media of said first output print device is in a first preferred ratio compared to the amount of consumable media in said second output print device;

when said first preferred ratio is achieved between the consumable media of said first output print device and said second output print device, said system controller alternates utilization of consumable media between said first output print device and said second output print device until said second output print device exhausts its consumable media;

upon replenishment of the consumable media of said second output print device, said system controller causes a disproportionate amount of utilization of consumable media to be produced from said second output print device compared to said first output print device, the disproportionate amount of utilization of consumable media continues until the amount of consumable media of said second output print device is in a second preferred ratio compared to the amount of consumable media in said first output print device;

when said second preferred ratio is achieved between the consumable media of said second output print device and said first output print device, said system controller alternates utilization of consumable media between said second

output print device and said first output print device until said first output print device exhausts its consumable media;

upon replenishment of the consumable media of said first output print device, said system controller causes a disproportionate amount of utilization of consumable media to be produced from said first output print device compared to  
5 said second output print device, the disproportionate amount of utilization of consumable media continues until the amount of consumable media of said first output print device is in said first preferred ratio compared to the amount of consumable media in said second output print device;

10 when said first preferred ratio is achieved between the consumable media of said first output print device and said second output print device, said system controller alternates utilization of consumable media between said first output print device and said second output print device until said second output print device exhausts its consumable media; and

15 said system controller maintains continued utilization of consumable media in the above alternating process.

5. A program storage device readable by a computer that tangibly embodies a program of instructions executable by the computer to perform a method to use a digital photographic kiosk that optimizes the output speed and the replenishment  
20 of consumable media, comprising:

using consumable media with a first output print device;

using consumable media with a second output print device;

controlling the utilization of consumable media of said first output print device and said second output print device with a system controller;

25 wherein said system controller initially causes a disproportionate amount of utilization of consumable media to be produced from said second output print device compared to said first output print device, the disproportionate amount of utilization of consumable media from said second output print device continues until the amount of consumable media of said first output print device is in a first  
30 preferred ratio compared to the amount of consumable media in said second output print device;

when said first preferred ratio is achieved between the consumable media of said first output print device and said second output print device, said system

controller alternates utilization of consumable media between said first output print device and said second output print device until said second output print device exhausts its consumable media;

5 upon replenishment of the consumable media of said second output print device, said system controller causes a disproportionate amount of utilization of consumable media to be produced from said second output print device compared to said first output print device, the disproportionate amount of utilization of consumable media continues until the amount of consumable media of said second output print device is in a second preferred ratio compared to the amount  
10 of consumable media in said first output print device;

when said second preferred ratio is achieved between the consumable media of said second output print device and said first output print device, said system controller alternates utilization of consumable media between said second output print device and said first output print device until said first output print  
15 device exhausts its consumable media;

upon replenishment of the consumable media of said first output print device, said system controller causes a disproportionate amount of utilization of consumable media to be produced from said first output print device compared to said second output print device, the disproportionate amount of utilization of consumable media continues until the amount of consumable media of said first  
20 output print device is in said first preferred ratio compared to the amount of consumable media in said second output print device;

when said first preferred ratio is achieved between the consumable media of said first output print device and said second output print device, said system  
25 controller alternates utilization of consumable media between said first output print device and said second output print device until said second output print device exhausts its consumable media; and

said system controller maintains continued utilization of consumable media in the above alternating process.

30 6. A dependent claim according to claims 1, 2, 3, 4, or 5 wherein said first preferred ratio occurs when the amount of consumable media of said first output print device minus the amount of consumable media of said second output print device equals half the amount of consumable media available when said first

output print device and said second output print device are both full of consumable media.

7. A dependent claim according to claims 1, 2, 3, 4, or 5 wherein said second preferred ratio occurs when the amount of consumable media of said second output print device minus the amount of consumable media of said first output print device equals half the amount of consumable media available when said second output print device and said first output print device are both full of consumable media.

8. A dependent claim according to claims 1, 2, 3, 4, or 5 wherein said first output print device or said second output print device further comprises a dye sublimation printer and where the consumable media further comprises dye transfer ribbons, paper, and protective overcoat laminate.

9. A dependent claim according to claims 1, 2, 3, 4, or 5 wherein said first output print device or said second output print device further comprises an inkjet printer and where the consumable media further comprises inkjet print cartridges and paper.

10. A dependent claim according to claims 1, 2, 3, 4, or 5 wherein said first output print device further comprises a first logical output print device and said second output print device further comprises a second logical output print device, said first logical output print device further comprises one or more physical output print devices, and said second logical output print device further comprises one or more physical output print devices.

11. An apparatus that optimizes the output speed and the replenishment of consumable media in a digital photographic kiosk, comprising:  
a first output print device with consumable media;  
a second output print device with consumable media;  
a system controller that controls the utilization of consumable media of said first output print device and said second output print device;

wherein said system controller initially causes a disproportionate amount of utilization of consumable media to be produced from said second output print device compared to said first output print device, the disproportionate amount of utilization of consumable media from said second output print device continues until the amount of consumable media of said first output print device is in a first



preferred ratio compared to the amount of consumable media in said second output print device, said first preferred ratio occurs when the amount of consumable media of said first output print device minus the amount of consumable media of said second output print device equals half the amount of consumable media available when said first output print device and said second output print device are both full of consumable media;

when said first preferred ratio is achieved between the consumable media of said first output print device and said second output print device, said system controller alternates utilization of consumable media between said first output print device and said second output print device until said second output print device exhausts its consumable media;

upon replenishment of the consumable media of said second output print device, said system controller causes a disproportionate amount of utilization of consumable media to be produced from said second output print device compared to said first output print device, the disproportionate amount of utilization of consumable media continues until the amount of consumable media of said second output print device is in a second preferred ratio compared to the amount of consumable media in said first output print device, said second preferred ratio occurs when the amount of consumable media of said second output print device minus the amount of consumable media of said first output print device equals half the amount of consumable media available when said second output print device and said first output print device are both full of consumable media;

when said second preferred ratio is achieved between the consumable media of said second output print device and said first output print device, said system controller alternates utilization of consumable media between said second output print device and said first output print device until said first output print device exhausts its consumable media;

upon replenishment of the consumable media of said first output print device, said system controller causes a disproportionate amount of utilization of consumable media to be produced from said first output print device compared to said second output print device, the disproportionate amount of utilization of consumable media continues until the amount of consumable media of said first

output print device is in said first preferred ratio compared to the amount of consumable media in said second output print device;

when said first preferred ratio is achieved between the consumable media of said first output print device and said second output print device, said system controller alternates utilization of consumable media between said first output print device and said second output print device until said second output print device exhausts its consumable media; and

said system controller maintains continued utilization of consumable media in the above alternating process.

10 12. A system that optimizes the output speed and the replenishment of consumable media in a digital photographic kiosk, comprising:

a digital photographic kiosk that further comprises:

a first output print device with consumable media;

a second output print device with consumable media;

15 a system controller that controls the utilization of consumable media of said first output print device and said second output print device;

wherein said system controller initially causes a disproportionate amount of utilization of consumable media to be produced from said second output print device compared to said first output print device, the disproportionate amount of utilization of consumable media from said second output print device continues until the amount of consumable media of said first output print device is in a first preferred ratio compared to the amount of consumable media in said second output print device, said first preferred ratio occurs when the amount of consumable media of said first output print device minus the amount of consumable media of said second output print device equals half the amount of consumable media available when said first output print device and said second output print device are both full of consumable media;

when said first preferred ratio is achieved between the consumable media of said first output print device and said second output print device, said system controller alternates utilization of consumable media between said first output print device and said second output print device until said second output print device exhausts its consumable media;

upon replenishment of the consumable media of said second output print device, said system controller causes a disproportionate amount of utilization of consumable media to be produced from said second output print device compared to said first output print device, the disproportionate amount of utilization of consumable media continues until the amount of consumable media of said second output print device is in a second preferred ratio compared to the amount of consumable media in said first output print device, said second preferred ratio occurs when the amount of consumable media of said second output print device minus the amount of consumable media of said first output print device equals half the amount of consumable media available when said second output print device and said first output print device are both full of consumable media;

when said second preferred ratio is achieved between the consumable media of said second output print device and said first output print device, said system controller alternates utilization of consumable media between said second output print device and said first output print device until said first output print device exhausts its consumable media;

upon replenishment of the consumable media of said first output print device, said system controller causes a disproportionate amount of utilization of consumable media to be produced from said first output print device compared to said second output print device, the disproportionate amount of utilization of consumable media continues until the amount of consumable media of said first output print device is in said first preferred ratio compared to the amount of consumable media in said second output print device;

when said first preferred ratio is achieved between the consumable media of said first output print device and said second output print device, said system controller alternates utilization of consumable media between said first output print device and said second output print device until said second output print device exhausts its consumable media; and

said system controller maintains continued utilization of consumable media in the above alternating process.

13. A method to make a digital photographic kiosk that optimizes the output speed and the replenishment of consumable media, comprising:

providing a first output print device with consumable media;

providing a second output print device with consumable media;

providing a system controller that controls the utilization of consumable media of said first output print device and said second output print device;

wherein said system controller initially causes a disproportionate amount of utilization of consumable media to be produced from said second output print device compared to said first output print device, the disproportionate amount of utilization of consumable media from said second output print device continues until the amount of consumable media of said first output print device is in a first preferred ratio compared to the amount of consumable media in said second output print device, said first preferred ratio occurs when the amount of consumable media of said first output print device minus the amount of consumable media of said second output print device equals half the amount of consumable media available when said first output print device and said second output print device are both full of consumable media;

when said first preferred ratio is achieved between the consumable media of said first output print device and said second output print device, said system controller alternates utilization of consumable media between said first output print device and said second output print device until said second output print device exhausts its consumable media;

upon replenishment of the consumable media of said second output print device, said system controller causes a disproportionate amount of utilization of consumable media to be produced from said second output print device compared to said first output print device, the disproportionate amount of utilization of consumable media continues until the amount of consumable media of said second output print device is in a second preferred ratio compared to the amount of consumable media in said first output print device, said second preferred ratio occurs when the amount of consumable media of said second output print device minus the amount of consumable media of said first output print device equals half the amount of consumable media available when said second output print device and said first output print device are both full of consumable media;

when said second preferred ratio is achieved between the consumable media of said second output print device and said first output print device, said system controller alternates utilization of consumable media between said second

output print device and said first output print device until said first output print device exhausts its consumable media;

upon replenishment of the consumable media of said first output print device, said system controller causes a disproportionate amount of utilization of consumable media to be produced from said first output print device compared to said second output print device, the disproportionate amount of utilization of consumable media continues until the amount of consumable media of said first output print device is in said first preferred ratio compared to the amount of consumable media in said second output print device;

when said first preferred ratio is achieved between the consumable media of said first output print device and said second output print device, said system controller alternates utilization of consumable media between said first output print device and said second output print device until said second output print device exhausts its consumable media; and

said system controller maintains continued utilization of consumable media in the above alternating process.

14. A method to use a digital photographic kiosk that optimizes the output speed and the replenishment of consumable media, comprising:

using consumable media with a first output print device;

using consumable media with a second output print device;

controlling the utilization of consumable media of said first output print device and said second output print device with a system controller;

wherein said system controller initially causes a disproportionate amount of utilization of consumable media to be produced from said second output print device compared to said first output print device, the disproportionate amount of utilization of consumable media from said second output print device continues until the amount of consumable media of said first output print device is in a first preferred ratio compared to the amount of consumable media in said second output print device, said first preferred ratio occurs when the amount of consumable media of said first output print device minus the amount of consumable media of said second output print device equals half the amount of consumable media available when said first output print device and said second output print device are both full of consumable media;

when said first preferred ratio is achieved between the consumable media of said first output print device and said second output print device, said system controller alternates utilization of consumable media between said first output print device and said second output print device until said second output print device  
5 exhausts its consumable media;

upon replenishment of the consumable media of said second output print device, said system controller causes a disproportionate amount of utilization of consumable media to be produced from said second output print device compared to said first output print device, the disproportionate amount of utilization of  
10 consumable media continues until the amount of consumable media of said second output print device is in a second preferred ratio compared to the amount of consumable media in said first output print device, said second preferred ratio occurs when the amount of consumable media of said second output print device minus the amount of consumable media of said first output print device equals half  
15 the amount of consumable media available when said second output print device and said first output print device are both full of consumable media;

when said second preferred ratio is achieved between the consumable media of said second output print device and said first output print device, said system controller alternates utilization of consumable media between said second  
20 output print device and said first output print device until said first output print device exhausts its consumable media;

upon replenishment of the consumable media of said first output print device, said system controller causes a disproportionate amount of utilization of consumable media to be produced from said first output print device compared to  
25 said second output print device, the disproportionate amount of utilization of consumable media continues until the amount of consumable media of said first output print device is in said first preferred ratio compared to the amount of consumable media in said second output print device;

when said first preferred ratio is achieved between the consumable media  
30 of said first output print device and said second output print device, said system controller alternates utilization of consumable media between said first output print device and said second output print device until said second output print device exhausts its consumable media; and

said system controller maintains continued utilization of consumable media in the above alternating process.

15. A program storage device readable by a computer that tangibly embodies a program of instructions executable by the computer to perform a method to use a digital photographic kiosk that optimizes the output speed and the replenishment of consumable media, comprising:

using consumable media with a first output print device;

using consumable media with a second output print device;

controlling the utilization of consumable media of said first output print device and said second output print device with a system controller;

wherein said system controller initially causes a disproportionate amount of utilization of consumable media to be produced from said second output print device compared to said first output print device, the disproportionate amount of utilization of consumable media from said second output print device continues until the amount of consumable media of said first output print device is in a first preferred ratio compared to the amount of consumable media in said second output print device, said first preferred ratio occurs when the amount of consumable media of said first output print device minus the amount of consumable media of said second output print device equals half the amount of consumable media available when said first output print device and said second output print device are both full of consumable media;

when said first preferred ratio is achieved between the consumable media of said first output print device and said second output print device, said system controller alternates utilization of consumable media between said first output print device and said second output print device until said second output print device exhausts its consumable media;

upon replenishment of the consumable media of said second output print device, said system controller causes a disproportionate amount of utilization of consumable media to be produced from said second output print device compared to said first output print device, the disproportionate amount of utilization of consumable media continues until the amount of consumable media of said second output print device is in a second preferred ratio compared to the amount of consumable media in said first output print device, said second preferred ratio

occurs when the amount of consumable media of said second output print device minus the amount of consumable media of said first output print device equals half the amount of consumable media available when said second output print device and said first output print device are both full of consumable media;

5           when said second preferred ratio is achieved between the consumable media of said second output print device and said first output print device, said system controller alternates utilization of consumable media between said second output print device and said first output print device until said first output print device exhausts its consumable media;

10           upon replenishment of the consumable media of said first output print device, said system controller causes a disproportionate amount of utilization of consumable media to be produced from said first output print device compared to said second output print device, the disproportionate amount of utilization of consumable media continues until the amount of consumable media of said first  
15           output print device is in said first preferred ratio compared to the amount of consumable media in said second output print device;

            when said first preferred ratio is achieved between the consumable media of said first output print device and said second output print device, said system controller alternates utilization of consumable media between said first output print  
20           device and said second output print device until said second output print device exhausts its consumable media; and

            said system controller maintains continued utilization of consumable media in the above alternating process.

16.    A dependent claim according to claims 11, 12, 13, 14, or 15 wherein said  
25           first output print device or said second output print device further comprises a dye sublimation printer and where the consumable media further comprises dye transfer ribbons, paper, and protective overcoat laminate.

17.    A dependent claim according to claims 11, 12, 13, 14, or 15 wherein said  
30           first output print device or said second output print device further comprises an inkjet printer and where the consumable media further comprises inkjet print cartridges and paper.

18.    A dependent claim according to claims 11, 12, 13, 14, or 15 wherein said first output print device further comprises a first logical output print device and said



second output print device further comprises a second logical output print device, said first logical output print device further comprises one or more physical output print devices, and said second logical output print device further comprises one or more physical output print devices.